AMENDMENTS TO THE SPECIFICATION:

On page 2, please replace the paragraph beginning on line 1 with the following amended paragraph.

The efficiency of the kiln is much greater by providing a flow of heating medium along the upper side of the rotating tube. The kiln efficiency is increased because the residence time of the gas along the surface of the rotating tube is increased and thus more time is provided for heat exchange. Moreover, flow of heating medium along the upper side results in exposure of a larger surface fraction of the rotating tube to the flow of heating medium, i.e. hot gas. Since it is possible for a portion of the gas, however, to flow around the underside of the rotating tube, a loss in efficiency occurs. This results since with such a flow pattern, the heat exchange is clearly less. A loss in efficiency and reduction in heat transfer also occurs if a narrow passage is provided in the form of a slit D along the underside of the rotating ~~rube~~ tube. In this case, the flow of heating medium would move along arrow A'.

On page 4, please replace the last paragraph beginning on line 27 with the following amended paragraph.

Referring to Figure 2, in accordance with the present invention, a rotary tubular kiln is provided, comprising a rotating tube 30, which can rotate within an approximately bowl-shaped, surrounding, stationary heating tunnel 32. The heating tunnel surrounds the rotating ~~rube~~tube, preferably along a substantial portion of the length of the heating tunnel. The heating tunnel wall 32A defines at least one inlet 34 for a heating medium such as hot air or hot gas, and at least one outlet 36. The inlet and outlet are, as shown in Figure 4, and in this respect, preferably shaped as relatively long recesses or openings of the heating tunnel, and arranged on the side walls that form the tunnel. The inlet and outlet can also be in the form of connections or tubes provided in a tunnel wall.